

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-021027**Date Inspected:** 22-Feb-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Zhou Zhong Hai**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG COMPONENT**Summary of Items Observed:**

On this day Caltrans OSM Quality Assurance (QA) Inspector Subhasis Bera was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhen Hua Port Machinery Company (ZPMC) at Chang Xing Island in Shanghai, China. QA Inspector observed and/or found the following:

In process Inspection

Trial Assembly

This QA Inspector observed the following work in progress:

SMAW in the 4G position for the OBG Segment 12BW to 12CW ,weld No. OBW12E-001. The welder is identified as #040611. ZPMC QC is identified as Mr. Zhou Peng. The welding variables recorded by QC appear to comply with WPS-345-SMAW-3G(3F)-REPAIR-FCM-1. The welding variables were recorded at, Amperage 154, volts 23.5.The In-process SMAW appears to be progressing in compliance with approved contract documents.

SMAW in the 1G position for the OBG Segment 12BW to 12CW ,UT repair weld No. OBW12C-001. The welder is identified as #040775. ZPMC QC is identified as Mr.Zhou Peng. The welding variables recorded by QC appear to comply with WPS-345-SMAW-1G(1F)-REPAIR-FCM-1.The weld repair report is identified as WR20263. The welding variables were recorded at, Amperage 156, volts 25.2.The In-process SMAW appears to be progressing in compliance with approved contract documents.

SMAW in the 4G position for the OBG Segment 12BW to 12CW, weld No. OBW12A-001. The welder is identified as #041713. ZPMC QC is identified as Mr. Wang Li Yang. The welding variables recorded by QC

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appear to comply with WPS-B-P-2214-Tc-U4b-FCM-1. The welding variables were recorded at, Amperage 151, volts 24.4. The In-process SMAW appears to be progressing in compliance with approved contract documents.

During random QA verification the QA inspector observed that the ZPMC personnel damaged the weld metal during Carbon Arc Back Gouging of UT repair location at splice joint of side plate of segment 12BW to 12CW at counter weight side. The ZPMC personnel made through hole on the weld. This QA inspector notified to ZPMC QC and ABF QA regarding this through hole on the weld. For more information refer the attached photo.

CWR verifications (CWR2805 R0)

Type – (D-scan)

This QA Inspector was notified via email for verification of B – CWR2805 R0 at 900 hours the following was observed:

- The component for verification was identified as OBE12E-002 (12BE to 12CE Side panel field splice weld @ E7)
- Weld repair was to be performed on location where rejectable indication was observed during Ultrasonic Testing (UT)
- ZPMC QC Zhou Zhong Hai was present on site to direct and record all repair work.
- WPS to be used for repair were WPS-345-SMAW-3G(3F)-FCM-Repair-1, WPS-345-SMAW-4G(4F)-FCM-Repair-1

CWR verifications (CWR2806 R0)

Type – (D-scan)

This QA Inspector was notified via email for verification of B–CWR2806 R0 at 900 hours the following was observed:

- The component for verification was identified as CA6502-010 (12BE to 12CE Edge panel field splice weld @ B3)
- Weld repair was to be performed on location where rejectable indication was observed during Ultrasonic Testing (UT)
- ZPMC QC Zhou Zhong Hai was present on site to direct and record all repair work.
- WPS to be used for repair were WPS-345-SMAW-3G(3F)-FCM-Repair-1, WPS-345-SMAW-4G(4F)-FCM-Repair-1

CWR verifications (CWR2807 R0)

Type – (D-scan)

This QA Inspector was notified via email for verification of B–CWR2807 R0 at 900 hours the following was observed:

- The component for verification was identified as CA3002-006, CA3004-002 (12BE to 12CE Edge panel to Deck panel corner weld @ E5)
- Weld repair was to be performed on location where rejectable indication was observed during Ultrasonic Testing (UT)
- ZPMC QC Zhou Zhong Hai was present on site to direct and record all repair work.
- WPS to be used for repair was WPS-345-SMAW-4G(4F)-FCM-Repair-1

CWR verifications (CWR2808 R0)

Type – (D-scan)

This QA Inspector was notified via email for verification of B–CWR2808 R0 at 900 hours the following was

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observed:

- The component for verification was identified as CA3003-006,CA3005-002 (12BE to 12CE Edge panel to Deck panel corner weld @ E2)
- Weld repair was to be performed on location where rejectable indication was observed during Ultrasonic Testing (UT)
- ZPMC QC Zhou Zhong Hai was present on site to direct and record all repair work.
- WPS to be used for repair was WPS-345-SMAW-4G(4F)-FCM-Repair-1

CWR verifications (CWR2809 R0)

Type – (D-scan)

This QA Inspector was notified via email for verification of B–CWR2809 R0 at 900 hours the following was observed:

- The component for verification was identified as CA3003-005,CA3005-001 (12BE to 12CE Edge panel to Side panel corner weld @ E1)
- Weld repair was to be performed on location where rejectable indication was observed during Ultrasonic Testing (UT)
- ZPMC QC Zhou Zhong Hai was present on site to direct and record all repair work.
- WPS to be used for repair was WPS-345-SMAW-4G(4F)-FCM-Repair-1

CWR verifications (CWR2810 R0)

Type – (D-scan)

This QA Inspector was notified via email for verification of B–CWR2810 R0 at 900 hours the following was observed:

- The component for verification was identified as CA3002-005,CA3004-001 (12BE to 12CE Edge panel to Side panel corner weld @ E6)
- Weld repair was to be performed on location where rejectable indication was observed during Ultrasonic Testing (UT)
- ZPMC QC Zhou Zhong Hai was present on site to direct and record all repair work.
- WPS to be used for repair were WPS-345-SMAW-1G(1F)-FCM-Repair-1,  
WPS-345-SMAW-4G(4F)-FCM-Repair-1

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

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### Summary of Conversations:

No relevant conversations

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 150-0042-2372, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Bera,Subhasis	Quality Assurance Inspector
<b>Reviewed By:</b>	Dsouza,Christopher	QA Reviewer

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